Open Source and IBM

Dr. Bob Sutor
Vice President, Open Source and Linux
IBM Software Group
www.sutor.com

Working definition of open source

Source code for software that is made available "freely" for reuse and distribution, usually with legal conditions attached, that may then be further developed by a community of some sort.

Why does IBM consider open source software important?

- OSS can be a major source of innovation
  - Innovation can happen any time, anywhere
  - Development through "open communities" leads to potentially broad ideas and creativity

- OSS is a good approach for developing emerging standards
  - Popular open source projects can become de facto / open standards
  - Wide distribution deployment

- OSS is a source of competition in marketplace
  - Office productivity applications (word processing, spreadsheets, presentation)
  - Operating systems (Linux for servers, desktops)
  - In some areas, perhaps only growing competitor to a single established vendor

Valid questions

- Is it good code and is it well architected?

- Who are the founders, contributors, and users?

- What are the motivations and behavior of each?

- What is the form and governance of the community?

- Is there a single dominant player that is controlling the direction or is it a more democratic community?

- Are there intellectual property issues involving copyrights or code provenance?

- What about that license?

WHY IS IBM SUPPORTING LINUX?

First, we'll never get there without wide adoption of open standards like Linux.

Second, that the complexity of the task is so great that IBM simply can't do it alone. No company can do it alone (although some still suggest otherwise). Only the concerted effort of the larger technology community can make it happen. And only the Linux movement can marshal that effort.

PEACE   LOVE   LINUX

March, 2001 - http://www-03.ibm.com/servers/eserver/linux/passport.swf

How does IBM use open source?

- To run our business

- In our hardware

- In our software

- As part of service engagements

- As an R&D collaboration vehicle

- As a way of influencing the direction of the IT industry

- As a way of leveling the playing field

- As a way of invigorating stagnant market categories

Double compute capacity with no increase in consumption or impact by 2010

IBM'S PROJECT BIG GREEN SPURS GLOBAL SHIFT TO LINUX ON MAINFRAME

ARMONK, NY, August 1, 2007

What's special about Linux?

- Linux supports multiple hardware platforms
  - Span from embedded devices to supercomputers
  - Speed of support for new platforms
  - Availability of skills, portability of applications
  - Scale-out through clustering as well as scale-up through SMP

- Linux has an affinity with virtualization and cloud computing
  - Supported on all major hypervisors, from z/VM to VMware and Hyper-V
  - Ability to be paravirtualized with Xen
  - Inclusion of KVM as part of Linux

- Linux is flexible
  - Modular and customizable, with flexible usage licensing

- Linux is developed by an open community
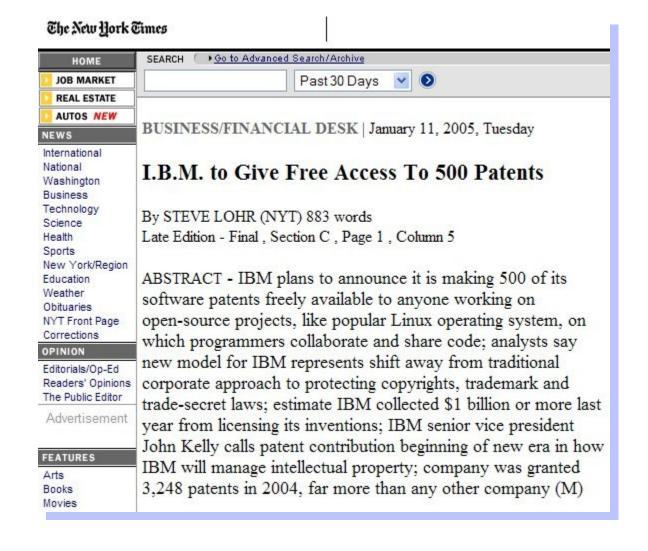 - Sharing skills and resources, leading to faster development

What does it mean to say that IBM supports open source?

- IBM has more than 800 developers working full time on open source projects, especially Linux and Eclipse.

- IBM participates in and supports pro-open source organizations like the Linux Foundation, the Software Freedom Law Center, and the Open Invention Network.

- IBM collaborates with many other companies and people around the world on open source projects.

- However …
  - IBM does not "bless" every open source project in the world.
  - Some open source projects compete with our products and we compete against them.

IBM's 2005 pledge for open source innovation

The New York Times

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BUSINESS/FINANCIAL DESK | January 11, 2005, Tuesday

I.B.M. to Give Free Access To 500 Patents

By STEVE LOHR (NYT) 883 words
Late Edition - Final , Section C , Page 1 , Column 5

ABSTRACT - IBM plans to announce it is making 500 of its software patents freely available to anyone working on open-source projects, like popular Linux operating system, on which programmers collaborate and share code; analysts say new model for IBM represents shift away from traditional corporate approach to protecting copyrights, trademark and trade-secret laws; estimate IBM collected $1 billion or more last year from licensing its inventions; IBM senior vice president John Kelly calls patent contribution beginning of new era in how IBM will manage intellectual property; company was granted 3,248 patents in 2004, far more than any other company (M)

Cultural issues with open source

- Open source offers different opportunities and concerns for software, hardware, and services providers.

- When should open source be managed by particular groups or put in the mainstream, to be handled by all?

- Those who do proprietary software sales often have the most difficulties with open source.

- It's important to treat open source providers as competitors, partners, or collaborators – just like for proprietary software!

IBM internal open source education

- Enablement material for sales professionals

- Key topics in IBM's general open source education
  - Introduction to open source software
  - Open source software strategic goals
  - Common open source software risks
  - Participating in open source software – IBM time, personal time
  - Third party open source software – access, share, distribute rules
  - Specific license agreements
  - Open source software review and approval process

- Focused education session for open source software teams

- Regular refresh and recertification

Open source forecast

- Open source, especially Linux, is the foundation of most cloud computing today.

- Linux on the desktop and in devices is changing the very definition of "desktop" and challenging traditional market leaders.

- Linux is becoming especially important on mainframes.

- I think we'll see very few additional blockbuster deals for open source companies.

- Government use of open source will accelerate its adoption, but pragmatism must balance philosophy and politics.

In conclusion

- Open source can be important to driving innovation because of community-based collaboration.

- Open source and traditional software development co-exist today and will continue to do so.

- Do not focus on the philosophy of open source but rather on the value it provides within the total cost of ownership.

- Cloud computing and the desktop are key to understanding how open source will be part of the next waves of innovation